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AROUND THE LAKES.

CLEVELAND.

Tug Record, Captain Bates, arrived Tuesy with the barge Walton lumber laden. aptain Bates thinks he has got the best lling tug on the lakes for her inches.

Delos Hayden Tuesday received his apintment from Acting Secretary Fairchild assistant lighthouse keeper of the new eakwater light at this port.

The steamer George A. Marsh, Captain umphrey, which has been doing work on e breakwater for the government all sumer, cleared for Detroit to lay up for the inter.

At Globe drydock the Richard Winslow ceived some necessary repairs. The Wal- L. Frost was in from Saturday till Mon. She got a new piece of keel, a fore- and repairs to her bottom.

he case in the United States district court he Moffat Tug Line against a raft of pine s, Christian H. Kraise et al., brought to over freight and towage to the amount of 34.60, has been settled and dismissed.

he tug Stickney of Saginaw will tow m Duluth the schooner Zack Chandler l barges Commodore and Peck, which re heretofore towed by the Quayle, deoyed by fire. Captain Warner has gone look after the interests of the owners of e Quayle.

The tug Record was libeled on Tuesday ening on her arrival here by Messrs. nith and made a party in the suit brought Mr. Pinet, owner of the barge Matilda, ainst Messrs. Smith for collision with and nking of the Matilda, entailing damages to e amount of $700. The Record was onded by her owners, the Globe Shipbuildg Company, and she left last evening with r tow for Bay City.

Freight rates on coal made quite a materal advance yesterday, both here and in uffalo. The engagements reported here re schooners Emma C. Hutchinson, coal, leveland to Chicago, $1.; steamer Queen the West, coal, Erie to Milwaukee, $1. is known that several other engagements ere made at the same rate. Ore rates reain firm at $1.10 from Escanaba, $1.25 om Marquette, and 1.65 from Ashland.

Three libels were filed in the admiralty ourt on Saturday last against the barge olonel Brackett. Two for wages due the ook and four of the seamen, amounting to 82.59, and one on behalf of the Phœnix Inurance Company for $626.25 for wreckage nd insurance. It seems to be generally nderstood that the boat has been abandoned y her owner, and she will probably be sold marshal sale as soon as the law will perit. She is owned by Captain Brown who as been in command of her during the eason.

The barge Joseph, Captain John Little, hich has been missing since she broke way from tug J. B. Clark, sunk off Tawas ast Thursday night and the crew was saved n the yawl. The Joseph had on board 41,000 feet of lumber, owned by Prescott & Son, of Tawas, and consigned to the Bay City Lumber Company. Barge Joseph, 292 ons, was built at Bay City by Tromley n 1867, and was valued by her owners t $4,000. No insurance. The owners have libeled the tug J. B. Clark for $2,926, on he ground that she made no effort to recover the Joseph after she broke away. The owners Mr. Kenney of this city and Captain Little; also the master and crew of the Joseph desire to return thanks through the RECORD to the lighthouse keeper on the Charities for his kindness in building them a large fire, giving them dry clothing and providing them with food. Also for conveying them to Caseville.

MILWAUKEE.

The missing schooner Joses has arrived here. Vessel masters arriving from below report the Leviathan at work on the stranded steambarge Graves at the Manitous. If released she will probably be brought here.

CHICAGO.

Special to the Marine Record.

The schooner Champion of Buffalo has been stripped and laid up at this port.

United States Marshall F. H. Marsh has given public notice that he will expose to sale the schooner Mystic, her boats, tackle apparrel and furniture on the 17th of November, 1885, at 10 o'clock a. m., on board the said schooner lying in the north branch of the Chicago river, between Division street and North avenue.

At a meeting of the Chicago Seamen's Union, held last Saturday, wages were advanced to $3 per day.

The steamer John Spry, of Green Bay, which has been running between Green Bay and Fonddulac on behalf of the Goodrich Transportation Company, burned to the waters' edge last Friday morning. She had on a cargo of flour which was uninsured. Loss on vessel $6,000.

The schooner R. B. King, Captain James Dunbar, which left this port for Muskegon on Friday last, light, struck the north pier at the latter port when trying to enter the harbor Saturday night in a heavy gale; her bows were stove in and she filled and capsized. Captain Dunbar and Charles Anderson, the mate, were saved by the Muskegon Life Saving Crew. F. Fringleson, aged 21, and Andrew Olson, aged 23, both of Chicago, were drowned. The King was built in 1863 at St. Joseph, and was owned by her captain, who valued her at $2,000.

At Miller Brother's dry dock, the schooner Jack Thompson was in getting her bottom calked, the tug Crane to have her stern bearing fixed and a leak stopped, the steam yacht Ida to have her bottom ironed, the tug John Miner got a new piece of wale strake and wale iron, the schooner Helen Spry and City of Chicago new catheads, the schooner Jason Parker a new bowsprit, the schooner Schuylkill a new mainboom, the schooner Lizzie A. Law a new jibboom, the tug J. V. Taylor had her decks calked.

The work of constructing the new bridge at Lake street is being got on with rapidly.

The propeller Nebraska has been chartered by the Lake Michigan and Lake Superior Transportation Company to take a cargo of package freight to Duluth and intermediate ports. The Nebraska will get $2,500 for the up trip.

Later advices from Lake Superior state that the steambarge Kittie M. Forbes, ashore on one of the Apostle islands, is in fair condition, and can be rescued if assistance is sent promptly. Acting under orders from Buffalo J. S. Dunham has dispatched two steam pumps by rail to Duluth, from which point they will be conveyed to the Forbes. A wrecking tug has left the Sault for the scene of the wreck. Even if the steamer is released it will be impossible to do more than take her to Duluth or some port in that vicinity, because the Sault river is liable to freeze up at any time. Captain Forbes, the principal owner, passed through the city en route to the Apostles to look after the vessel. WILLIAMS.

BAY CITY.

Special to the Marine Record.

Manager Richard Armstrong, of the Saginaw river fire patrol tug line, has just purchased the fire tug Jas. Hay of the Tittabawassa Boom Co. for a consideration of $5,000. The Hay will receive a Worthington pump and take the place of the C. M. Farrar at East Saginaw.

The propeller Mat Sicken and barges Senator Blood and B. W. Baker, and the propeller T. S. Christy and barges Seminole, E. F. Gould, Jenness and Sweepstakes, arrived in port Sunday.

The schooner Senator Blood, Captain Glass has been chartered to go to Sandusky after coal for Marine City when she will lay up for the winter.

The extensive shipyards at this port have contracts for building six barges the coming winter, which will make times lively in this line of business.

The propeller A. A. Turner and tow on entering the river Sunday night got aground just outside the first dock. She was got off though without any assistance. SHAW.

BUFFALO.

Special to the Marine Record.

Nov. 10.—Our creek, for a few days, showed a lively business for the first two or three days of the week, but has slacked off considerably since. A large amount of grain was received and transferred during Friday and Saturday, canal boats having the advantage for a time; but just as soon as the elevators were somewhat relieved freight dropped back to the former rate, 5@5½c. Only a few boats got 6c. The position of the canal men has had quite an effect on all business by that route. Lumber men are in quite a close corner as well as grain men. Their docks are overcrowded so that they cannot receive any more, and in several cases shipments from above have been stopped for the present, and it looks very much as if grain receivers will have to call a halt too, as quite a large amount is on its way, and some due to-day and to-night, both from Chicago and Duluth, and a large portion is for storage. The capacity of the elevators being heavily taxed, it requires a strong imagination to know what to do with it. It is more a problem than some think. It is true some of the old elevators that have not been in use for years are now being opened. The Watson, one of the largest in Buffalo, was opened Monday, and has a boat alongside, the W. A. Haskell, from Duluth, and the Swiftsure and William Wells elevators have received some already, for the first time in years; but the capacity of the two latter is small and affords but little relief. It has been eight or ten years since Buffalo has been so taxed for grain storage, and it is causing those interested in elevators to think seriously of extending greater facilities in that direction, as it is and has been one of the best paying investments in this section of country; but capital is always timid, and a little cloud which hangs over Albany makes them halt. The attempt made in the legislature last winter to reduce the tariff charges on elevating and shoveling grain out of vessels, has created in the minds of the elevator men quite a suspicion, so they say, that their dividends may be reduced to below a paying point; at least below the present enormous percentage it has been paying. We can make no comparison in the general business of the lake with that, and it is very selfish in them to refuse a proportionate reduction with the business of the day. It looks very much as if elevator men are trying to kill the goose that lays the golden egg. If all the lake carrying trade was cut off what would elevator stock be reduced to, is the immediate question.

There has been in port this week some of the largest tonnage on the lakes, all with grain. The steamer Onoko with some 95,000 bushels of corn; Iron Duke and consort Iron Cliff, wheat from Duluth; W. H. Barnum and consort Merengo, Chicago, wheat; C. I. Kershaw, wheat, Chicago; W. J. Averill, wheat, Duluth; W. A. Haskill, Duluth; City of Rome and consort E. S. Wing, Duluth, wheat; Siberia and consort Polynesia, Duluth, wheat; John B. Lyon and consorts Hutchison and Sawyer, Chicago, corn and steamer William Edwards, Golden Age, and M. W. Page as consorts; V. H. Ketcham, corn; R. P. Ranney and consort Quayle, Chicago, corn; D. C. Whitney and consort Wayne, Chicago, flaxseed; schooners Unadilla and Lafrinier, latter Toledo, former Detroit, wheat.

The prediction of the writer in last week's letter regarding the hard coal trade is being verified so far as freight rates go. During the first part of the week shippers gave signs of some anxiety to ship with a concession of 10 cents from 50 to 60 cents to Milwaukee and Chicago, and each day, for three days, have steadily advanced rates until this day the 10th, they have reached 90 cents to either of the above ports, and in one case $1.00 has been offered to Port Arthur, without takers, and I predict that $1,00 to $1.25 will be paid before the 15th to Chicago or Milwaukee, and perhaps $1.00 to Duluth. Of course no vessel will go up Lake Superior unless on contract, after that date for less, should grain freights rule at to-day's rates.

Charters for coal during the week are quite large, consisting of heavy tonnage. Steamship Onoko 2,800 tons, Golden Age 2,600, J. B. Lyon 2,100, W. H. Barnum 1,400, C. J. Kirshaw 1,250, schooner Marengo 1,200, schooner Hutchison 1,600, schooner Sawyer 1,000 and the week closes with steamer R. P. Ranney and consort Quayle, coal to Chicago; V. H. Ketchum same port, schooner James Mowatt, Milwaukee and Racine.

The Courier says the resolve of the Merchant's exchange to store here in bulk all of the Duluth wheat according to grade, instead of keeping cargoes separate, ought to be promptly carried out by the elevator people. It will give the houses more room by doing away with the storing of small remnants in large bins.

Lake receipts for last week included 1,856,760 bushels grain, 868,040 bushels flaxseed and 176,490 bushels flour. Canal shipments comprised 1,196,320 bushels grain and 217,580 bushels flaxseed. Coal shipments by lake for the week were 49,450 tons, and for the season 1,341,020 tons, against 1,298,060 tons last year.

The propeller Oneida, will make this round trip and return to Milwaukee, where Captain Ward will deliver her back to her owners.

The Lake Superior Transit boats arriving after Monday will be laid up after discharging their cargoes.

Captain Alex Quinn, well know tugman, has shipped as master of the steamer Sanilac, which has started up on her last trip.

The damages sustained by the canal boats Scottish Chief and J. W. Dean from the collision by the steamer William Edwards were appraised and a settlement made with their owners. The Dean was allowed $435 and the Chief $1,300, which includes the price of the two mules and the one horse drowned on the latter. This is a much more favorable outcome than had been expected. The Great Wardrobe, the best of the three boats, with 105 tons of coal, is still sunk and her damages cannot be computed until she has been raised. Preparations to get her up were being made. It is probable that the entire damage by the unfortunate smashup will be between $3,000 and $3,500.

The three Clyde built steamers have become as notorious for speed and mishaps for the short life of the line as any three ships run on fresh water for many a year. Their history from the Clyde, where they were constructed, up to to-day, would read well and strangely.

The season is closing up fast, and there is dullness in all branches of ship building, iron and wood, and in machine shops nothing but slight repairs. Steamer Starucca is still in dock and it may be said that is all that is doing in that branch. Canal boats are moving more freely. All are anxious to load now at 5@5½., wheat and corn. Lumber is being relieved some by shipments east. Line boats are carrying full loads of package freight and little grain. WM.

SANDUSKY.

Steambarge Norma, engaged in the stone trade between this port and Marblehead, and belonging to Ohlemacher Bros., of this city, was damaged to the extent of $6,000 or $7,000 Monday night by fire, which broke out in her hold. Captain Henry Steukey, and Adam Beach, cook, were asleep in the cabin and barely escaped in a half suffocated condition. The clothing and personal effects of both were destroyed. The Norma was built in 1884, valued at $15,000, and insured against fire for $500.

MARITIME LAW.

PERSONAL INJURY—CONTRIBUTORY NEGLIGENCE—ADMIRALTY COURT NOT BOUND BY COMMON LAW RULE—CURRY VS. THE STEAMSHIP MAX MORRIS.

U. S. District Court, Southern District of New York.

Brown, J.

The libelant was one of a gang of stevedore's men, who, on the evening of October 27, 1884, went aboard the steamship Max Morris, lying at her wharf, to shovel coal. In passing from forward aft, the libelant was obliged to pass over what is termed the "lower bridge," a structure about 50 feet long amidships, extending from rail to rail, and about six feet above the main deck. He went up a ladder of the usual kind off the port side, passed directly aft on that side, and finding an opening through the guard rail at the after-end of this lower bridge corresponding in place with the forward opening, supposed it to lead down to a ladder similar to the ladder forward. It being nearly dark, he did not observe, and did not suspect, that no ladder was there, and putting his foot down to the supposed steps, lost his hold, fell to the main deck below, broke his collar bone, and was for a time disabled. This libel was filed to recover his damages.

Each side strenuously contends that the other is solely to blame for this accident. The ship is claimed to be responsible because her construction was unusual; because this rear opening was dangerous, and calculated to mislead persons not previously acquainted with the peculiar structure of the ship; because the opening through the railing was in a place where a ladder would naturally be expected; and because being unguarded, by chain or otherwise, and not notified to the libelant, it was no better than a pitfall for the unsuspecting workmen. The libelant is claimed to be solely responsible because he exercised no reasonable caution in going in the nighttime about a ship with which he was unfamiliar; because ships vary in the details of their construction as much as houses, and no set type can be presumed upon; because the opening in the rail at this place was not designed for a ladder, but for the play of the small boat which was upon the outer side of it; because no ladder had ever been there, and the opening was but 14 inches wide, whereas the opening for a ladder is always at least 18 inches wide; and because it was evident carelessness, as it is said, for a laborer to push through so narrow an opening at night and undertake to go down without first ascertaining whether there was a ladder there or not.

The evidence shows that the construction of this "lower bridge" was somewhat unusual, but not unexampled, and that the descent aft was on the starboard side from a platform extending forward and facing amidships. The experts examined differed as to the propriety or necessity of a guard at an opening of but 14 inches, such as that through which the libelant fell. The very competent expert on the part of the steamship apparently based his testimony in part, at least, upon the assumption that a man could not pass through such a opening without turning, or squeezing. Experiment, however, shows that this might possibly be done, though not readily, and that it would not be likely to happen in a person's ordinary movements, the rail being about three feet high.

The considerations urged upon each side are manifestly entitled to weight, and I find myself constrained to hold each in substantial fault contributing to the accident. It is impossible to absolve landsmen accustomed to work upon vessels in port, from reasonable care and attention to their movements about vessels with which they are unacquainted. The darkness in this case made it the duty of the libelant to exercise the greatest care in his movements, or else to supply himself with one of the several lights that were provided by the ship, but were unused. On the other hand, reasonable consideration for the safety of workmen coming on board is a duty imposed by law upon the owners and masters of vessels, both from humanity to the workmen, and from policy to prevent them from becoming, through such accidents, a public charge. Reasonable consideration demands that some safe guards shall be provided against any peculiarities of the vessel that are naturally calculated to mislead the unwary, and to involve them in danger and injury unawares. Though this opening was somewhat smaller than the usual opening for ladders, it was not so small as to be impracticable for such a use. The difference was slight, certainly not sufficient to be ordinarily observable in the dark, nor sufficient to be in itself a notice that the opening was not a passage way, or to serve as a warning in the night time, when its small size might not be, and, in this case, was not perceived, while its position, where a ladder is usually found, and being opposite to the forward ladder, afforded so strong a natural supposition of a ladder there, that not a doubt of it occurred to the libelant. In my judgment it was clearly dangerous; it should have been guarded by a chain, or some other precautionary measure, such as might easily have been provided. "The Manhassett, 19 Fed. Rep. 430; the Pilot, Boy, 23 Fed. Rep. 103.)

As I must find the libelant also chargeable with negligence in the particulars above mentioned, the question is presented whether in a court of admiralty, in a case of personal injuries to landsmen arising from the concurrent negligence of the ship and of the libelant, any damages can be awarded, or whether the libel must be dismissed, according to the rule in common law cases. That the rule of municipal law should be followed has been presumed, or implied, in several cases in the district courts. (See the Germania, 9 Ben. 356; Holmes vs. Oregon & Cal. RR. Co., 5, Fed. Rep. 523, 538, the Chandos, 4 Fed. Rep, 645, 649; the Kate Cann 8 Fed. Rep. 719; the Manhasset, 19 Fed. Rep. 480.) The cases of Sunney vs. Holt, 15 Fed. Rep. 880, and Dwyer vs. Nat. St. Co., 17 Blatch. 472, were cases at law. The cases cited of injury through the negligence of fellow servants are not applicable.

This question has recently been carefully examined in the circuit court by Judge Pardee of the fifth circuit in the cases of the Explorer, 20 Fed. Rep. 135, and the Wanderer, do. 140. No decision has been made upon the precise point in this circuit. It is clear that in admiralty causes, even in cases of personal injuries, this court is not strictly bound by the common law rules. The language of the Supreme court in the Marianne Flore, 11 Wheat, 54, and the Palmyra, 12 Wheat, 1, cited by Judge Pardee, sufficiently shows this. But the same considerations of justice, of prudence, and of policy, which have caused that rule to be adopted so widely in the common law, and in the civil law, should, doubtless, lead to its observance in ordinary cases in admiralty. (See the E. B. Ward, Jr., 20 Fed. 702.) "A party who is in delicto" says Story, J., in the Marianna Flore above cited, "ought to make a strong case to entitle himself to general belief."

But not infrequently cases do arise in which the common law rule is manifestly inequitable; strong cases, in which justice, humanity, and public policy alike demand that those who by their concurrent negligence have caused great suffering and injury to those dependant upon their daily duty earnings for support should not be exempted from all charge, simply because some contributory fault may be found in the sufferer. The practice in admiralty to apportion damages in cases of mutual fault, is not strictly confined to collisions and prize causes. It has been applied in this district, and in this circuit, to cases of loss by negligent navigation, where both parties are chargeable with fault, and public policy demands that both be made responsible. (The Wm. Murtagh, 3 Fed. Rep. 404, 17 do. 260; the Wm. Cox 3 do. 645, affirmed in the circuit court, 9 do. 672; Connolly vs. Ross, 11 Fed. Rep. 342; the Bordentown, 16 Fed. Rep. 276:) to injuries of boats on the bottom of slips (Christian vs. Van Vassel, 12 Fed. Rep. 884;) to injuries to old boats (the Syracuse, 18 Fed. Rep. 828; the Rebs, 22 do. 516); and by Judge Sprague to loss by leakage from different causes attributable to each party (Snow vs. Carruth, 1 Sprague, 324.)

These cases proceed upon an equitable judgment and discretion that are admissable in the admiralty to a greater extent than exists in common law causes. Where the common law rule controls, or is supposed to be binding, the demands of obvious justice are constantly leading to new modifications of what shall be deemed such contributory negligence as to bar recovery, and to the adoption of peculiar views of the facts, both by the court and juries such as would not be taken, but for the hardship of the case.

Deference to the ruling of the circuit judge of the fifth circuit in the cases above quoted, as well as the approval of my own judgment, leads me to follow the rule suggested by him in cases of this kind, involving great hardship and suffering, at least until this view be overruled, viz., "to give or withhold damages according to principles of justice and equity, considering all the circumstances of the case, not as full compensation for the injury, but as required by decency and humanity from a party without whose fault there would have been no injury." This rule has been again recognized by him in the case of the Mable Corneaux, 24 Fed. Rep. 490, though not applied because the vessel was not in fault. I may add that the same considerations of public policy that demand that every person shall take proper care of himself (Shear. & R. Negligence, 2d Ed. Sec. 42,) also demands that ships in port, on board which accidents are constantly multiplying from the increasing complications of their arrangements, and from their modern appliances, shall not be practically exempted from the duty of taking all reasonable precautions against accidents, by proof of some slight fault in the sufferer, and that they shall not by their fault and negligence cause those who are dependent on their daily earnings for support to become a burden and a charge upon the public. "The moiety rule in collision causes was adopted," says Bradley, J., in the Alabama, 92 U. S. 697, "for the better distribution of justice among mutual wrong doers." (See also per Nelson, J., in the Catharine, 17 How. 178; the Hudson, 15 Fed. Rep. 166.) The more equal distribution of justice, the dictates of humanity, the safety of life and limb, and the public good, will, I think, be clearly best promoted by holding vessels liable to bear some part of the actual pecuniary loss, where their fault, is clear provided that the libelant's fault, though evident, is neither wilful, nor gross, nor inexcusable, and where the other circumstances present a strong case for his relief. Such a rule will certainly not diminish the care of laborers for their own safety, while it will surely tend to quicken the attention of the owners and masters of vessels toward providing all needful means for the safety of life and limb.

The libelant in this case was treated at the public hospital without charge. His collar bone was broken. He was disabled from work for about three months, and though working steadily now, suffers some drawbacks from the accident, and possibly will do so throughout his life. This is a case sufficiently strong, as it seems to me, to require the claimants to bear some part of the damage that their concurrent negligence occasioned. Following the precedent of the Explorer, *supra*, I shall charge to the libelant's own fault all his pain and suffering, and all mere consequential damages, and charge the vessel with his wages, at the rate of $2 per day for 75 working days, making $150, for which sum a decree may be entered, with costs.

August 18, 1885.

FALSE SHIPPING PAPER.

The late Judge Wilkins rendered an important decision to all vessel owners, in the United States court. It was in the case of the brig Ocean, libeled for running under false shipping papers. The court held that an American vessel sold to a foreign owner, and becoming a foreign vessel, cannot be retransferred to an American owner and become an American vessel, but must continue to be a foreign craft, subject to the payment of tonnage duties and such other disabilities as pertain to such vessels. An infringement of this law renders the vessel liable to total forfeiture.

The steamer William Edwards was recently the cause of an unfortunate and disastrous collision. At 9:30 o'clock, having let go of her tow, while making the harbor, she sheered out of her course and ran into three canal boats lying abreast in the Erie basin just around the end of the Lackawanna pier. The night was very dark and rainy, and the boats had no lights up. A squall a short time before had sent the water up the river, and when the Edward came along there was quite an outward current. To clear two vessels lying abreast at the old lighthouse pier she was obliged to get well over to the northward, and when Captain Mallory put his wheel hard over the steamer for some unaccountable reason did not answer. Before he could tell in the blackness where he was the Edwards had struck the outside boat, the Scottish Chief, a hard blow on her starboard bow, cutting her completely in two. Three mules in the stable were killed outright. The boat was light, and the one man in the cabin barely had time to clamber out so quickly did she fill with water. The middle boat was the Great Wardrobe, a first-class laker, which had on 105 tons coal. After going through the outer one the Edwards crashed into the starboard bow of this boat, going almost through her. She at once filled and sank. The captain, his wife and two children narrowly escaped with their lives. Two mules in the stable of the Wardrobe were drowned. The J. W. Dean was the inside boat. She also was light, but was badly jammed against the dock and suffered considerable damage. It is estimated that the total damage will amount to about $5,000. Captain Mallory thinks that if the boats had shown lights he might have kept clear of them.—*Buffalo Courier.*

A recent decision from the treasury department is very important to the extensive fishing interests of the lakes. It decided that a fisherman who engages actively in navigation of any sort is entitled to the benefits of hospital services. This has been a disputed question, and has always been decided adversely to the fishermen. They have never been able to take advantage of the service. Now they can insist upon treatment by the physicians of the service.

END OF TUG FRANK MOFFAT.

The Port Huron Times gives the following details of the explosion, briefly noted in these columns last week, by which tug Frank Moffat was destroyed:

Saturday night the tug, with four schooners, in tow, arrived down from Lake Huron and coaled at Wright & Eldridge's dock. A deck hand, James Murray, of this city, was shipped, and the tug and her tow proceeded down the river. As the boats neared the Flats Captain Thomas Currie concluded to round to at Sombria and await daylight. When the tug reached the dock Robert Goodwin, the mate, sprang ashore with the intention of making fast, but before he was able to do so he heard a loud explosion, and turning around, was surprised to find that the boat had entirely disappeared, it having sunk before the steam had cleared away.

At the time of the explosion the only persons awake on board the tug were Captain Currie, William Miller, second engineer, and Walter Fisher, a fireman. Miller and Fisher were instantly killed, and Captain Currie had the knee of his right leg dislocated.

As soon as the steam had cleared away it was found that the following persons were killed and injured:

KILLED.

William Ward, chief engineer, of Detroit.
William Miller, second engineer, of Port Huron.
James Riley, a fireman, Anderdon, Ont.
Walter Fisher, a fireman, of Petrolia.

INJURED.

Captain Thomas Currie, of Port Huron, knee dislocated and slight scalp wounds.
Robert Goodwin, mate, of Port Huron, bruised about the body.
Harry Sirron, deck hand, shoulder dislocated and neck scalded.
Frank Fortan, wheelsman, of Port Huron, badly scalded.
James Murray, deck hand, of Port Huron, slight bruises about the face.
Archie Reed, deck hand, of Port Huron, slight head wound.
Maud Bentley, the cook, Port Huron, slight injuries.

Miss Bentley, the cook, heard the explosion, and without stopping to dress opened the door of her room and ran up stairs. She says the water followed her and by the time she reached the deck the water was up to her chin. She grasped a piece of floating plank and drifted about a mile down stream before she was rescued.

Just how the accident happened will, perhaps, ever remain a mystery. A. R. Cole, boiler inspector, was interviewed by a Times reporter. Mr. Cole said that he was the last man to examine the boiler and found it in first-class order, not a weak point or leak in its whole make-up. Mr. Cole says that when a tug is pulling hard the water in its boiler generally rises from three to four inches above its actual height, and he is of the opinion that when the boat slacked up at the Sombra dock the engineer discovered that the water was low and immediately set the pumps in motion to force water into the boiler, and that the moment the cold water struck the inside of the boiler the explosion took place without any warning.

William Miller, of this city, the second engineer, was on duty at the time, and Mr. Ward, the chief, was asleep in the rear of the engine room. It is probable that these two men never knew what hurt them.

About two weeks ago a Mr. Duchane, who had occupied the position of chief engineer on the tug, resigned and accepted a similar position on the steambarge Tuttle. Thos. Nagle, the second engineer, was offered the position of chief engineer, and in order to secure the papers necessary to hold the position he was taking a week's vacation at the time of the explosion. Mr. Ward, the chief engineer, who was killed, was only holding the position temporarily and would have been relieved this week.

The force of the explosion was so great that the boiler was forced to the bow of the boat and stood on end, the sides of the boat were blown out and the entire boat wrecked. The Moffat sank at the dock and is a total loss.

Upon hearing the sad news the tug Kittie Haight immediately left for the scene of the disaster. The ferry Beard followed in a short time with Captain Cornwell, manager of the line, Tom McVenn, the cashier, a number of doctors and citizens. The wounded were carefully cared for, but the bodies of the dead men were not recovered, a number of them being wedged in between the boat and the boiler.

Frank Furtah, the wheelsman, who was badly scalded, died this morning. He leaves a wife and two children.

Wm. Miller was a member of K. O. T. M. and had a policy on his life for $1,000 payable to his father.

The Frank Moffat was built in 1869 by Captain E. Fitzgerald, at his shipyard in this city, for Geo. E. Brockway, Henry McMorran and Captain James Moffat, at a cost of about $25,000. The boat for many years was acknowledged to be one of the finest tugs on the lakes and has made a good deal of money for her owners. At the time of the disaster she was rated B1½, was valued at $10,000 and was owned by the Moffat Tug Association.

The Moffat was insured, but the insurance does not cover loss by explosion. With her disappearance is recorded the sixth disaster, occurring in the short space of one year, to tugs employed in towing on the St. Clair and Detroit rivers. Such a series of disasters to tug property is without precedent in the history of the lake marine.

The Chicago Inter Ocean said: "The report which was started by a seaman of the schooner Sawyer to the effect that Captain Thomas Burch, of the schooner Scotia, was in a Halsted street drinking saloon Sunday night last, is not believed by his friends. Captain Thomas G. Crosby, of Buffalo, who instituted search for the missing captain, is

confident that he is not alive. 'It was reported yesterday,' said Mr. Crosby, 'that Captain Burch was stopping at his brother-in-law's house on the West Side. I made a personal investigation of the report and found that it was untrue, and this tends more than ever to confirm the suspicion that he is not alive. Captain Burch had a wife and family of seven children residing at Buffalo, and they are in rather poor circumstances.' The missing master's friends believe that he was murdered and robbed while he was going out to his vessel Friday night, because he had a considerable sum of money with him.

ELECTRIC LIGHTS FOR IRONCLADS.

The electric light, though apparently lingering on its way to our streets and private dwellings, is rapidly taking possession of large properties, such a commercial establishments, manufactories, public institutions, and shipping. It is now not only installed but in full use in four ironclads. The Colossus has been fitted throughout with this light, and so has the Chilian war ship Esmeralda. The Brazilian vessel Richulo is electrically lighted, and the Aquidaban, the new ironclad recently built for the Brazilian Government by Messrs. Samuda Brothers, and now lying in Millwall docks, was completely lighted up by electricity last evening. Any one who has explored the depths of an ironclad can readily conceive the value of the electric glow lamps in such subterranean, or rather subaqueous, regions. Their illumination is not only cheerfully bright and thorough, but is accomplished without polluting the air and aggravating the inevitable closeness of the air at such a depth from the deck. In the vicinity of the magazine they excite no alarm. No pitch or roll can affect them, and in storms they will shine as steadily as in a calm, mitigating by their cheery glow the miseries of the weather. In the admiral's rooms and the officers' quarters they are a veritable luxury, while for all work on deck, including the loading or unloading of stores, their capability of being grouped under a shade and used as a pendant light at any height or depth renders them of the highest utility. All these advantages are obviously obtained to the full in the arrangement of the 200 incandescent lamps with which Messrs. R. E. Crompton & Co. have supplied the Aquidaban. But for the purposes of an ironclad, another adaptation of the electric light is of paramount importance, and Messrs. Crompton & Co. have therefore also fitted this vessel with two great search lights—arc lights of 25,000 candle power nominally, but of greatly magnified intensity when their beam is concentrated by the mirror arrangements of the lamp and projected as it may be for long distances on either side of the ship. One of these powerful lights is placed aft, and the other in an elevated position in front of the bridge. By a special invention the mirrors of the huge projectors, as well as the whole of the incandescent lamps, are so hung, as to minimize the risks of fracture from the concussion caused by the firing of the heavy guns in the turrets.—*London Daily News.*

PINE FROM GEORGIAN BAY.

The future of Bay City so far as the lumber manufacturer is concerned has been a study of those interested for a number of years. With the rapidity with which the pineries, tributary to Bay City, have been devastated in the past few years, it became known that within the scope of another decade the stock of logs in the lower peninsula will have become pretty well wiped out, the question arose, what was to be done to supply the mammoth saw mills at this place, and this question has at last been answered.

The contract was closed yesterday for the bringing of 200,000,000 feet of pine lumber from Georgian bay. The agreement was made between Ben Boutell, of this city, who will do the towing, and Emery Brothers, of Tawas, and Loveland, of the Crow Island Lumber Company, who are to furnish the logs at a certain figure per thousand feet. Negotiations for such a contract have been under way for several days. Mr. Boutell will build a barge 230 feet long and 40 feet wide, purposely designed for carrying logs on deck. The craft is calculated to carry about 600,000 feet, and make the round trip in a week, which is much faster than could be done by rafting, as well as being much safer. The barge will be built this winter and be ready for work early next season when 15,000,000 of the contract will be brought from the Georgian bay country.

This contract is only one of several that will be made. Eddy Brothers, it is said, have recently purchased large tracts of timber on Georgian bay, which is all to come to Bay City. Hill Brothers, who are putting in 25,000,000 in the upper peninsula, will bring the logs to Bay City to be sawed.

If the barge to be built by Mr. Boutell works successfully, and there is no doubt but it will, others will be constructed. In the course of a few years there will be a regular line of barges running between Bay City and Georgian bay and the upper peninsula.—*Bay City Tribune.*

S. A. Murphy of Detroit, is badly embarrassed financially. Libels have been filed for $13,012.79 against the vessel and tug property owned by him in the Detroit Tug and Transit Company, and the tugs Gladiator, A. J. Smith, and W. A. Moore have been tied up. Steps have also been taken to foreclose a $15,000 mortgage on the wrecking apparatus used in the raising of the Quebec. The entire property of Mr. Murphy's company is said to be worth about $150,000, and the impression prevails at Detroit that he will yet succeed in extricating himself from his troubles. Captain Murphy has spent much money in his effort to raise the Quebec, which was unusually difficult on account of the great depth of water in which she lay. His many friends will hope that he may bravely pull through his misfortunes.—*Buffalo Courier.*

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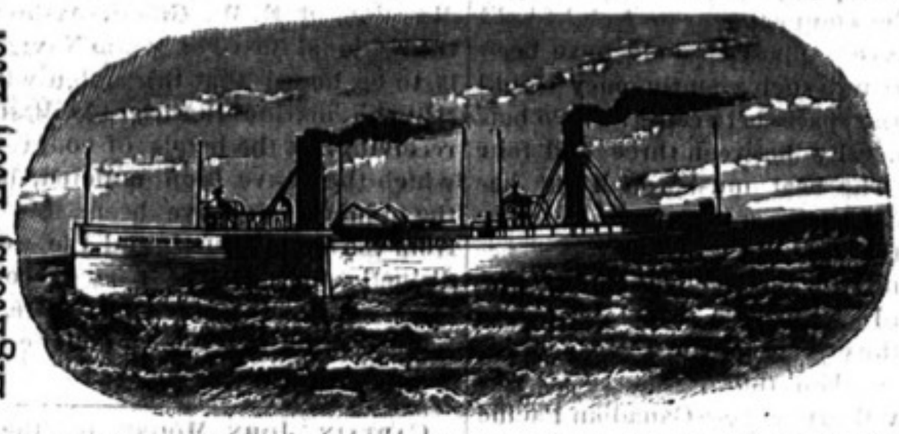

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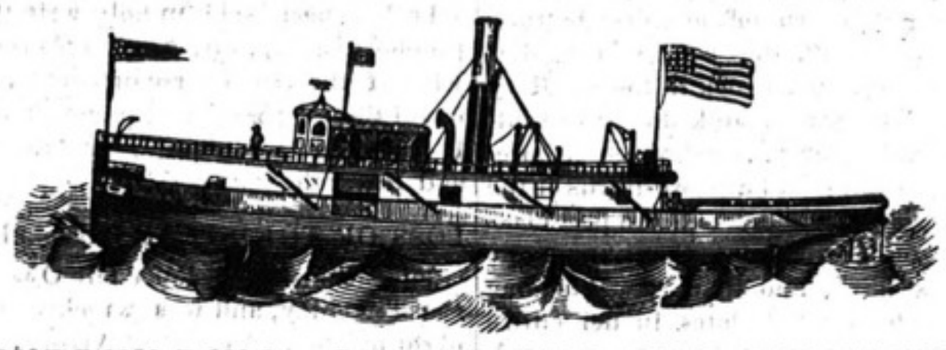

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OFFICIAL NUMBERS AND SIGNAL LETTERS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, Nov 3, 1885.

To the Editor of the Marine Record:

Following is a list of merchant vessels of the United States to which official numbers and signal letters were assigned by the Bureau of Navigation, Treasury Department, during the week ended Oct. 31, 1885:

Official Number.	Signal Letters.	Rig.	Name of Vessel.	Tonnage Gross.	Tonnage Net	Home Port.
			SAIL VESSELS.			
129.328	.....	Sl.	Carrie P. Gambrill,	9.28	8 82	Crisfield, Md.
157,164	K D G F	Sc	David Lee,	640.	608.	Somers Point N. J.
76,601	.....	Sc.	John Shaw,	928.13	881 73	Bay City, Mich,
76.603	K D G H	Sc.	Jose Olaverri,	661 73	628.65	Rockland, Me.
140.803	.....	Flat.	..ula.	13 12	12.46	Mobile, Ala.
91 809	K D G C	Sc.	Maggie S. Hart,	679.10	645.15	New York, N. Y.
91,810	.....	Sc.	Monitor,	32.07		Shieldsboro Miss.
135,120	.....	Sc	Ocean Wave,	10 44	9 92	Grisfield, Md.
			STEAM VESSELS.			
126.327	.....	St. s	Ceres,	16 59	8 29	Norwalk, Conn.
126.329	.....	St.p.	City of Owensboro.	714.87	664 93	Louisville, Ky.
85.909	.....	St.p.	Gate City.	109 44	109.44	do
95.863	.....	St.p.	Henry S. Frisbie,	270 45	270.45	Cincinnati, Ohio.
76,602	.....	St. p	Josie W.,	156 40	.....	Louisville, Ky.
76,604	.....	St. s.	Janie,	17.21	8 03	Buffalo, N. Y.
140,804	.....	St. y	Lulu,	4.	3	Ludington, Mich.
150.363	.....	St. p	Polar Wave,	150.34	150 34	St. Louis, Mo.
			UNRIGG'D VESSELS			
59.420	.....	Flat.	Trusty.	41.60	41.60	Mobile, Ala

JARVIS PATTEN, Commissioner of Navigation.

A dispatch (October 30) from Chicago said: The steamship Onoko, the largest iron propeller on the lakes, went to Richardson's coal dock at 8 o'clock last Wednesday morning, and by dark this evening had discharged her entire cargo of coal, amounting to 2,800 tons. This is the best work ever performed at a coal dock in Chicago. To-night the Onoko went to an elevator, and unless some unforeseen accident occurs, will get away for Buffalo to-morrow with 95,000 bushels of wheat. This makes the third cargo of grain that the Onoko has taken out of Chicago this month. She left here October 2 with 95,000 bushels of wheat, and again October 17 with 105,000 bushels of corn, both cargoes being delivered at Buffalo. She also discharged 9,000 tons of coal at Chicago during that period.

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Following is the time in effect June 28, 1885, and until further notice:

EASTWARD	Arrive.	Depart.
Buffalo Accommodation	*10 40 A M	*10 45 A M
Chicago Accommodation	*9 02 P M	
Local Freight	*11 45 A M	*12 15 P M
WESTWARD.	Arrive	Depart.
Chicago Accommodation		*6 35 A M
Fostoria Accommodation	*4 46 P M	*4 51 P M
Local Freight	*12 20 P M	*12 50 P M

ROCKY RIVER ACCOMMODATION.
Depart—*7:45 a. m., *1:35 p. m.

EUCLID ACCOMMODATION.
Depart—*6 24 a. m., *9:10 a. m., *5:05 p. m.
*Daily except Sunday.

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination

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Commencing Sunday, June 28 1885, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express	*8 20 A M	*8 45 A M
No 26, Elyria Accommodation	†7 45 A M	
No 35, Buffalo Ac'm via Sandusky	†10 30 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 30 A M	†10 50 A M
No 12, N Y & B Fast Express	*2 20 P M	*2 45 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 25 A M
No 23, Mich Express via Sandusky	*2 15 A M	
No 3, Chicago Express via "	§6 05 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 30 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 30 P M
No 5, St Louis Ex via Sandusky	*10 30 A M	*10 40 A M
No 9, Chi Pac Ex via Norwalk	6 15 P M	*6 40 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:15 a. m, and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m, and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, § daily, except Monday.

A local Cleveland and New York sleeper daily on No. 12, leaving Cleveland at 2.45 p. m.; arrive Grand Central depot, New York, 10 30 a. m.

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A. A. POMEROY, Editor and Proprietor.

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CLEVELAND, OHIO, THURSDAY, NOVEMBER 12

IRON AND STEEL BOATS.

The Plain Dealer, in commenting on the disaster to the steamer Algoma, Captain John Moore, says: "As specimens of steel craft, those of the Canadian Pacific line are probably the best to be found anywhere. Their cost, as reported, was $450,000 each, which, if true, and the amount reasonably expended, would insure a splendid vessel. One fact was again demonstrated, and that is that when an iron or steel vessel strikes the rocks she goes to pieces and goes quickly."

In taking issue with this opinion we must say that the Algoma, one of the three Clyde built steel steamers, was not the best specimen of iron or steel boats to be found anywhere; neither did they cost $450,000 each, but about $250,000. The Algoma was not even a good specimen of iron shipbuilding, with the exception of her luxurious furnishing and fitting for the passenger trade. No provision was made in her construction against such an accident as the one by reason of which she was lost, and which is lamentable, especially when it is considered that she was designed by her owners to ply in a trade, on a route abounding with hidden rocks and unmarked reefs and shoals, and where such a contingency as that which has overtaken her was likely to be met any day, that of going on a reef and getting a hole through her bottom. She did not stick on the reef, but was cleared by the force of the next huge wave, and immediately went down in deep water, without giving her officers a moment's warning, or as soon as she could fill. The Algoma was built as they build some ocean-going steamers which have not the dangers above set forth to guard against, without a double bottom, and contained but five bulkheads. The bulkheads were not built with due regard to all their effective qualities, as they were but carried up to the main deck instead of to the spar deck, as lake builders have them; a perfect bulkhead as all well-built, ocean-going boats have. In certain contingencies, provision against which is essential; bulkheads built only to the main deck are valueless for the first principle of their requirement, that of preventing the entire hold of the vessel from filling. For instance, if the plates on the Alberta, recently in collision with the Osborn, had been torn a little further back, she would have flooded all of her freight holds from above and gone down as quickly as the Osborn did, for the reason already assigned, a fact which was noted while the Alberta was under repair at Detroit.

In the case of the Algoma, a double bottom would have been her salvation and that of the unfortunate lives which went down with her, if we may rely on the dispatches which say that "after having her bottom punctured she slipped off the reef and immediately sunk in deep water." She had no source of buoyancy left. Her bulkheads were rendered useless by the probability that the majority of her holds were pierced; whereas, if she had contained a double bottom, only the space between the two bottoms of the holds pierced would have filled, and the only result would have been an addition to her displacement to the amount of tonnage added in the water. In case the second bottom had been reached and punctured by the rocks between either one of her freight holds, the bulkheads being carried to the spar deck, the water would have been confined there and she could readily have been kept free, or nearly so, by the application of her pumps, of which she had a complement for such purpose. It also follows, that in case she carried a water bottom she would have been provided with pumps to take care of the water that might enter, and those pumps could also be brought to bear on the compartment or freight hold which we have supposed would have been reached, although such a contingency would be rare as the space between the two bottoms is generally between three and four feet deep. The boat must roll below her bilge before the second bottom could be reached by the rocks.

Some of the iron and steel shipbuilders on the lakes build with these principles before them, and thus guard against the fatality that has overtaken the Algoma. It was understood at the time these Canadian Pacific boats were first talked of, that they were to be built with water bottoms and that an oak bottom would be put on also, as a sheathing or skin, like that on the propellers India, China and Japan, to secure them against the hidden dangers on the route over which they were to ply. The India, China and Japan were built without water bottoms, and were run two or three seasons, but Manager Evans, realizing the necessity of further protection for the boats, deemed it wise to cover the single bottom with a skin of oak, thus protecting their single shell of iron. In the case of the Jewett, which ran ashore at full speed in Lake Huron last season, the water bottom was her salvation. Her cargo was lightered to the amount of displacement added by water, and she was pulled off and went on to her destination apparently uninjured, but really with ten or twelve plates torn off her first bottom. On the other hand, the wooden propeller Quebec which struck a rock in the St. Mary river in smooth water, sunk in an instant, her crew barely having time to get ashore.

The Algoma did not have two-thirds of the weight of material in her that the first class iron lake-built vessels of about the same dimensions have, and there was but one seam of double riveted plates in her entire construction, the rest being single riveted. She was built with an outside bar keel, and if she went on a smooth rock the keel must go through her like a knife, while the iron, lake-built boat, with water bottom having no projection, being flat, could slide up on a smooth rock and take an even bearing without apparent harm. Iron vessels, built three thousand miles from the lakes, by men who know nothing about the requirements of lake navigation, should not and can not be compared to the iron vessels built on the lakes for the lake trade by men who know and guard against every contingency, therefore the statement that the Algoma represented the best class of iron lake-built boats cannot be maintained for a day.

LICENSE FEES.

As a war measure a system of tax on income was levied. On the industry of the marine engineer it assumed the form of a license to the engineer to follow his vocation. When the cause was removed the tax should also have been removed. It was removed in almost every case, that is, on almost every branch of industry, but the marine engineer continued to pay his tax, he continued to purchase his license to work at his business at an exorbitant price; the men who went down to sea in the engine-room, to whom was intrusted the lives of the passengers and crew, and the safety of the ship, continued until quite recently, to pay into the coffers of the government their annual tax for license to work, and if they worked without the license they laid themselves under penalty. It is quite proper to secure efficiency by a system of supervision on the part of the government, but this could have been done before, as now, without exacting this onerous fee from the applicant. As the income tax, after having served its purpose, was repealed in 1869, lifting a burden from all branches of business and from every skilled mechanic, so also should this fee or tax on the marine engineer have been repealed. It was not done, however. The question now arises: Is it possible, since the reduction of the license fee last year, to the nominal sum of cost for blanks, to recover the back fees paid by this fraternity? In the hope of obtaining justice in this matter the National Association of Marine Engineers, at its last annual meeting, in Cincinnati, adopted a resolution reciting, "That the standing committee on legislation petition congress to refund to the licensed engineers, (licensed officers) of this country, every dollar paid for license, over and above fifty cents, since the repeal of the income tax. And in order to bring the subject before congress, at its next session, a committee will have a bill prepared, which will provide for the refunding of the money to the officers who paid it, or their heirs."

In addition and auxiliary to the bill referred to, each member of congress will be provided with a petition, signed by licensed officers and others, asking that they be righted in this matter and an influence brought to bear on congress, under the direction of E. W. Gould, ex-president of the National Board of Steam Navigation. It is to be hoped that this action will prevail, that the marine engineers will succeed in receiving, at the hands of congress, that of which they have been mulcted, but by all the opinions we have been able to obtain from those interested, and the well known disinclination on the part of congress to touch surplus funds of this nature, we must say that the likelihood of succeeding is small.

CAPTAIN JOHN MOORE, of the steamer Algoma, is a veteran on the lakes, an able seaman, and one who is not apt to lose his head in a trying moment. He doubtless did all in his power to allay the fears and quiet the panic among the passengers and crew, but there are some tasks that even a brave seaman can not accomplish. The only reflection against him is for the attempt to enter a harbor through abounding dangers when he had a clear run of two hundred miles before him.

ENGINEER J. H. HARRIS has been favorably spoken of to fill the position of assistant inspector at St. Louis, made vacant by the death of Mr. Albert Stephenson. As Mr. Harris is a practical engineer and well versed in all the mysteries of engineering, no better appointment could be made.

IT has been said in holy writ that false prophets will appear, etc., but for those most wide of the true course of events, we commend the prophets of the weather bureau. It is possible to learn too much by travel and research.

LOSS OF THE STEAMSHIP ALGOMA.

The steamship Algoma left Owen Sound last Thursday, and was wrecked Saturday night on the route to Port Arthur. The first known of the disaster was when the steamer Athabasca, on the same line, arrived at Port Arthur late Monday evening with the crew of the ill fated Algoma, consisting of thirteen, and two of the passengers, who were the only ones saved. The Athabasca, which left Owen Sound two days after the Algoma, came upon the wreck at Isle Royal and found the crew and two passengers in a perishing condition on an island. The wreck had been dashed with the maddened waves against the rocks, and was finally beaten against the shore of the island. The crew and two of the passengers saved themselves by taking to the life boat and battling with the waves until the shore was reached. The boat was washed over several times by the waves, but righted again, while the men clung with the despair of death to the sides. They succeeded in reaching land almost dead from exposure and exhaustion.

The storm continued to rage furiously all night long. The rescued remained on the beach watching the wreck beat against the rock bound island, and seing the dead bodies dashed in by the surf against the shores. The Athabasca came along about noon Monday, and as the channel is narrow could not avoid seeing the wreck and the distress of those on the island. A boat was sent ashore and brought the rescued to the Athabasca, which set sail for Port Arthur, where she arrived about 7 o'clock. There was intense excitement in the city, as many had friends on board. The list of cabin passengers can be had at Toronto or Sault Ste. Marie, where a manifest of passengers is given to the customs officers. The Algoma was a thoroughly built and splendidly equipped Clyde steel steamer lighted by electricity. The gross tonnage is 1,780, length 270 feet, breadth 38 feet. She was complete in every detail. The furnishing was luxurious as the finest ocean steamers. The vessel cost $250,000 and is understood to have been insured for $200,000. She was one of three steamers—Alberta, Athabasca, and Algoma—purchased two years ago by the Canadian Pacific railroad for lake traffic, and built on the Clyde, brought to Buffalo in sections and put together at Buffalo, since which time she has been plying steadily between Owen Sound and Port Arthur, doing big business. The steamers, it is said, gave the greatest satisfaction.

A PASSENGER'S ACCOUNT.

One of the rescued passengers gives a graphic account of the terrible scenes before and after the wreck. "It's no use to describe the scene," said he; "nothing worse ever occurred on earth. In their madness, when the waves were washing the deck, a number threw themselves into the foaming billows. Others, when a great wave would pass off the deck, which was swaying from side to side, were swept into the sea like feathers. A few hung on to ropes or to masts, but the majority seemed to abandon themselves in the wild alarm and despair. Even the crew seemed powerless, so stricken were they with the awful suddenness and stupendousness of the disaster. Meanwhile the boat

RAPIDLY WENT TO PIECES,

dashed against the rocks. The crew, all of whom except the waitresses had clung to the rigging, managed during a slight lull in the storm to place themselves in a lifeboat, cut the fastenings, and in an instant a wave swept them from the ilifated wreck. Amid the awful roar of the wind and the terrible dashing of the waves the boat was borne onward. Two of the passengers had managed to place themselves in the boat before it was cut away from the wreck. Any efforts that had been made to launch boats during the early confusion and horror had failed. Meantime the lifeboat and its occupants had a terrible experience on the open storm tossed lake. All who could bound themselves to the boat, while the remainder

HELD ON LIKE GRIM DEATH,

to the sides, expecting every moment to meet their death either by drowning or from exposure and cold, which was intense. The half dead inmates were borne on. Once the boat was turned over with the waves and one of the crew washed away, but the craft righted itself and was swept on in the darkness. After half an hour the boat suddenly struck some rocks. The inmates feared all was over with them, as the craft capsized, but, to their surprise, when thrown out, the water was only a foot deep and they discovered that they were on land. After remaining there an hour or more, exposed to the elements, the storm abated and the sky cleared. It was then discovered that they were on Isle Royal; and that the vessel had been wrecked

ABOUT A MILE FROM SHORE

on the great boulders that exist near the channel. It was about 10 o'clock in the morning, and the half dead crew remained there until late in the afternoon, when the Athabasca came along and picked them up. They were then taken to Port Arthur."

It is now known that forty-eight lives were lost in the wreck of the steamer Algoma on Isle Royal, Lake Superior. When the steamer Athabasca arrived at Port Arthur, after rescuing the survivors from their perilous position on the rocks, she had on board Captain John Moore, commander of the ill fated vessel, two passengers and eleven of her crew, making fourteen all told. They were all that were left of sixty-two persons who embarked on the Algoma for Port Arthur at Owen Sound last Thursday.

THOSE WHO WERE SAVED.

The following are the survivors:

W. J. HULL and W. B. M'ARTHUR of Meadford, Ont.

CAPTAIN JOHN MOORE.

FIRST MATE HASTINGS.

SECOND MATE RICHARD SIMPSON.

WHEELMAN HENRY LEWIS.

WATCHMAN JOHN C. M'NABB.

FIREMAN P. M'COLGAR.

R. STEVENS, JAMES BOLTON and DANIEL LAUGHLIN deck hands.

JOHN M'LANE, GEORGE M'CALL and JOHN M'KENZIE, waiters.

The captain was badly injured. The ship's papers were lost and the passenger list could not be obtained.

A PARTIAL LIST OF THE LOST.

The following is a list of the lost:

MRS. DUDGEON and her son, aged 10, of St. Paul.

MR. and MRS. FROST (or Foster,) relatives of R. P. Burchart of Owen Sound.

GEORGE PETTIGREW, chief engineer.

ALEX McDERMOTT of Sarnia, second engineer.

R. MACKENZIE purser, of Sarnia.

ALEXANDER TAYLOR, chief steward, Buffalo.

MR. JONES, steerage steward, of Scotland.

DOUGLAS CHARLES BUCHANAN of Edward county, Ontario.

LOUIS ZIMMERMAN, late of Port Arthur.

G. EMERSON, of Ramsgate, England.

WILLIAM MULLIGAN, Meadford, Ont.

THOMAS SNELLING, waiter.

JOHN SCOTT.

L. BATES.

BALLANTYNE BATES, deckhands.

MRS. SHANNON, ladies maid.

GILL, of Markdale.

MRS. TAYLOR.

STEWARD McINTYRE is supposed to be lost.

FRED KNIGHT, THOMAS McKENNY, HENDERSON, H. McCLINTON, waiters.

The others names, consisting of deck hands, fireman, waiters and others of the crew, cannot be obtained.

DETROIT.

Special to the Marine Record.

Nov. 10.—There is thus far but little change in the monotony of marine events, considering the advanced state of the season. Freights on all kinds of commodities have brightened up a little, and there is a disposition on the part of vessel owners to keep things moving as long as matters continue as at present. And why not? The business throughout the season of navigation, with a majority, has been a losing one, and with a fair prospect of a late closing, it is well to make up for lost time.

Thomas S. Kennedy, an old veteran navigator, who has passed out of mind for many years, and was supposed to have gone to his final rest long since, and whom many of the present generation know nothing of, died on Thursday at Saginaw, at an advanced age. In those early days of 1848, and subsequent years, I knew him well as master of the schooner Julia Smith, a craft of 98 tons burden, and one of the few trading to the Saginaw valley.

Notwithstanding the contradictory statements which have been received from time to time regarding the raising of the propeller Quebec, which thus far has become a weary subject to trespass upon, the information just received may be regarded as strictly reliable, and probably before the expiration of the present week she will be removed out of harm's way for the winter. A dispatch from Captain John E. Tobin, as late as Friday, states that she has been got into shoal water, and steam pumps put in operation and the work of clearing her of water already begun. The Murphy Brothers have, in the meantime, been harrassed in every possible way when and wherever an opportunity was afforded by uneasy creditors, spurred on, as is alleged by parties opposed to their interests, but as matters look at present they will come out victors in the end; at least it is so hoped. Later news from the Quebec wrecking parties state that she is afloat and will soon be taken to the Owen Sound for the necessaey rebuild and repairs.

The tug Mocking Bird did not reach the steambarge W. T. Graves, stranded at the North Manitou, in time to save her, and she has consequently become a total loss. The Adams was released after 15,000 bushels of corn was thrown out and taken in charge of by the tug A. J. Wright, which was aiding operations, and taken on to Buffalo. As near as can be learned the remainder of her cargo will be valueless. The Graves was built at Cleveland, by Quayle & Martin, in 1878, and was 1,078 tons burden. The two vessels were valued at $77,000, and were owned, as is generally known, by Carrington, of Toledo.

The propeller City of Dresden, which plies between Windsor and Leamington, lost her smokestack in the gale last week.

The propeller Oconto, which plies to and from this port, was libeled a few days since, on a claim for supplies, amounting to $115, furnished by Murdock & Trix.

The steambarge S. C. Hall goes into winter quarters at this port, and during the winter will have her engine compounded.

The schooner Jessie, while near Grosse Isle, Detroit river, a day or two since, lost an anchor, which will probably be recovered.

The steambarge George K. Burnham, a stranger in these waters, arrived here on Thursday with a cargo of cedar ties for this port, her first appearance thus far eastward.

Vessels arriving up, at this port, report having an unusually rough passage while on Lake Erie. The schooner Senator was considerably shaken up, and during the storm the captain had his knee dislocated. She has been laid up here.

The tug Ella Taylor has arrived, down, with the last raft of the season, one of elm logs. She met with delays, yet was so fortunate as to lose but one log while en route.

The steamers plying to Mackinac and way ports are doing a good business, while those of the Lake Superior Transit line are equally favored.

The propeller Nyack, Captain Rhynas, passed up on Friday with over 900 tons of freight, taken on at Buffalo, and while here took on board 200 tons additional. This is her last trip of the season.

The light ship off Bar Point is being removed by the Canadian government, a spar buoy taking its place. The American lighthouse is considered a more reliable guide to vessels, and it is thought probable the light ship will not be replaced.

The steambarge Polynesia passed down Friday with wheat from Duluth at 5c. freight, the highest rate from that point thus far this season.

The tug Admiral Porter has completed her repairs at this port and is again in commission.

The bodies of the first and second engineers, James Ward and William Miller, of the ill-fated tug Frank Moffat, were recovered on Saturday, about one hundred yards below the scene of the explosion, and were taken to Port Huron for interment.

The new steamer Darius Cole made a trial here on Friday. Everything worked well, and, under a moderate pressure, she made good speed.

The Canadian government intend locating a life saving station at Pigeon Bay, which has been much needed, and it is also rumored the light on Point au Pellee will be discontinued, but this can not be credited, as it is one of the most important on Lake Erie.

A few charters have been effected at this port during the past week, and strange to relate, our brokers have penetrated to other ports, thus assisting in the booms elsewhere. Steamer Iron Duke, a Detroit vessel, coal, Buffalo to Milwaukee at 70c. Other rates as follows: Coal, Cleveland to Alpena, 60c. pig iron, St. Ignace, rate not given. Wheat, Detroit to Oswego 4½c., to Buffalo 2½c. The schooner William Shupe takes wheat to Oswego at 5½c. free out, to remain on board during the winter. Wheat, Detroit to Ogdensburg 6c. free out, to hold cargo during the winter.

The Canadian government has advertised for tenders for the removal of the tug Bob Hackett, sunk some time since at the head of Bois Blanc island, Detroit river.

The propeller Russia, downward bound, grounded Friday forenoon, on a shoal, between Mama Juda and Grassy island. The tug Swain went to her relief, but her services were not required, as the steamer got afloat by her own resources without damage.

The engine for the new side wheel steamer City of Cleveland is being constructed by Messrs. W. & A. Fletcher, of New York city, and will be the finest engine on the lakes. Cylinder, 66 inches in diameter and 12 feet stroke, with all the improvements of the period, but this was given in the MARINE RECORD at the time of the launch, and need not be repeated.

The Canadian schooner Fargo was plastered by the marshal, the other day, for a small tow bill of twelve dollars, due the Moflat Tug Line. It was promptly settled and the vessel released.

The weather in this locality has been mild, with variable winds and continuous rain, although Saturday would have passed well for a balmy day in July, with considerable warmth. The weather-wise predict and still cling to the hope that there will be a late closing.

The recent blasting of rocks at the Lime Kiln crossing has rendered it somewhat dangerous to vessels passing that thoroughfare, in view of which Frank Dwyer, submarine diver, has been engaged to remove the loose rock out of harm's way.

The total shipments of lumber from Alpena last week were 4,590,000 feet; to Chicago 1,970,000 feet, Toledo 800,000 feet, Sandusky 340,000 feet, Cleveland 340,000 feet. Beside the above there were shipments of cedar posts, ties, and telegraph poles to various ports.

Judge Brown, in the United States court has appointed G. F. Russel receiver of the Detroit tug and transit company, otherwise known as the "Murphy line." This action is the result of the pressing demands that have been so numerous upon Mr. Murphy of late. While many regret that it became necessary for so serious an action it is considered the best possible movements for all concerned.

A small riot took place here Saturday night between union and non-union sailors, on board the schooner Abbie L. Andrews, laden for Buffalo. The captain dispersed the gang and left on his voyage with a non-union crew.

HALL.

KINGSTON.

The Grand Trunk being prohibited from receiving flour shipments from Chicago for American points in Canadian bottoms, has made arrangements for carrying flour in American vessels, and the propeller Russia left recently for Sarnia with 13,000 barrels for shipment east via the Grand Trunk Road.

The owners of the propeller Myles have contracted with McLean & Crawford, of Duluth, to repair the damage to that boat's machinery. New cylinders are to be put in, and the machinery generally will be overhauled. The boat will remain in Duluth during the winter, and the captain has been instructed to discharge the crew.

The steamer Khartoum went to South Bay, and relieved the schooner Hanna Butler, which grounded there, of about 1,200 bushels of undamaged barley. The remainder of her cargo (5,000 bushels) is badly damaged.

The schooner A. J. McBrier, going from Big Sodus to Baltimore, arrived in port, and, owing to the high wind, cast anchor off the water works dock. During a gale she parted both her cables and drifted on to Robertson Bros'. stone warehouse, carrying away her jibboom and bowsprit. Both anchors were lost, but may be found. She is undergoing repairs at Power's yard.

While the tug Elfin was ascending the river, at Montreal, with a tow of barges when the gale was at its height, on the 3d, some of the barges were blown broadside on to one of the harbor commissioners' dredges at work on the side of the channel. The hull of the dredge was crushed in and she sank almost immediately. About the same time a bateau loaded with brick was ascending the St. Mary's current under sail when she was forced out of her course by some of the gearing giving away, and colliding with the wharf sank. The hands managed to scramble ashore just as the craft was settling down. The Elfin is well known in Kingston marine circles.

Notice is given that a rock with twelve feet of water on it has been reported by Staff Commander Boulton, R. N., as lying north one-half, east nearly half nautical mile from the light station on Clapperton island, north channel, in the district of Algoma, Ont. To keep south of this danger the south extremity of Amadrose island should be kept closed with the northeast point of Clapperton island.

A dispatch from Blenheim, Ont., said: "The little schooner Honora Carr, formerly called the Maple Leaf, 52 tons, from Buffalo light, went ashore west of the Rondeau piers Monday morning. She was seized by Bailiff Fellows under a mortgage held by J. A. Dease, and will probably be sold where she lies. She was built at Bayfield by Biglow in 1872.

EAST SAGINAW.

Special to the Marine Record.

Carkin, Stickney & Cram's tug Mildred has been hauled out for a thorough calking and other repairs.

The River line steamer Wellington R. Burt will be taken from the route next Saturday night. The steamer L. S. Mason will continue until the close of navigation, making two trips a day.

Captain Carson Glass, of the barge Senator Blood, reports having had quite a little excitement in one way and another on his last trip down with the propeller Sicken. The Blood had for a cargo what is called a "wrong side up" load; that is, the dry lumber in the hold and green on top. On the first two days after loading it rained heavily and as a consequence the Blood got top heavy and Captain Glass was compelled to cut a hole in the cabin floor when he took five thousand feet of lumber off the top and put it in the hold. The Blood tied up at Marine City the night the tug Moffat blew up, and the mate, Bob Patterson, who was on watch and on the rail forward, was knocked down to the deck, never knowing what caused the shock until he reached Cleveland.

The present week has been an extremely dull one compared to the week previous, very little lumber having gone forward on account of there being no boats to take it. But Sunday and Monday brought in the propeller Tempest and four barges, tug J. P. Clark and three barges, Germania and four barges, D. L. Rose and three barges, Benton and five barges, tug Ella Smith and five barges, the Curtis and four barges, and Bay City and four barges, all of which have loaded at the advance in freights.

The great mishap to the Genesee street bridge has caused the board of supervisors to have an examination of the bridge made, and as a consequence the structure has been condemned to all kinds of travel and the draw kept swung. The steam yachts Cora K. D., Mary Bell, David Sutton, and C. P. Fish are making trips between the cities until the street car company makes other arrangements.

The tug O. W. Cheeney, with the barges A. W. Wright and Geo. H. Waud in tow, came into the river on Saturday, coal laden. In placing the boats to their docks the barge Waud ran into the stern of the Wright, doing damage to the extent of two hundred dollars.

A free fight occurred on the barge Amaranth between two wollopers Monday afternoon, and the captain was compelled to use the never failing remedy of a pail of cold water to part them.

SHAW,

CHEBOYGAN.

The tug Pendell caught fire at 8 o'clock Monday morning while repairs were being made at her machinery at the shipyard. The supposed origin was the upsetting of a stove in the after part of the boat. The fire was extinguished by the fire department. Damages, $500. The Pendell, 29 tons, was built at East Saginaw by Robarge in 1879 and owned by Kitchen of Cheboygan; classed A2.

FRANKFORT.

Special to the Marine Record.

Work on the new life station is progressing nicely, and at Point Betsy station a new tower has been built during the past week.

It is getting unsafe for vessels to risk landing at the bridge piers on this coast at this late season. The tug Alice Campbell acted as tender to schooner Dresden, and scow German at Aral pier Thursday. The Josephine Dresden is an old timer, built at Michigan City thirty-three years ago.

In last week's RECORD it is stated that the schooner J. Y. Scammon was lost in 1848 at Calmet. She either was released or another craft of the same name built, for the brig J. Y. Scammon, owned by Hannah Lay & Co., of Traverse City, was wrecked on the South Manitou island during a lively NE. gale, on the 8th day of June, 1854. On that day snow fell on the island to a depth of six inches, but a rain later on melted it away. Mr. Slyfield was keeper of the United States light there, and has as a memento of the disaster, a spyglass with the name of the schooner engraved on the same.

[Our correspondent is right in regard to the date of the loss of the brig J. Y. Scammon. The historian, however, refers to the schooner Scammon, wrecked near Calmut, Lake Michigan, with a cargo of wheat, all of which was lost, with two lives. The schooner Scammon was wrecked about the middle of March, 1848, and with cargo, was valued at $13,750. The brig J. Y. Scammon was valued at $8,000.—ED.]

The scow Mocking Bird, of Charlevoix, was sheltered here yesterday. She was built at Manitowoc in 1873, by the late Jonah Richards. She is of peculiar model, having been built up from a river lumber lighter to a lake vessel.

BURMEISTER.

CLAYTON.

Special to the Marine Record.

Dr. A. Bain will have built at his boat shop two boats, 21 feet keel, 23 feet over all, 4½ feet beam, 2½ feet depth of hold; smooth outside and calk seam strong enough to use the Shipman kerosene engine from one to two horse power. Dr. Bain sold, during the summer, one hundred and nine of his celebrated St. Lawrence fishing boats.

The steamer Magic has gone into winter-quarters and will be hauled out on Washington island for the winter.

The United States steamer Bibb was in port on last Thursday evening.

Steam barge Wilson and consorts and steam barge Baldwin and consorts Eureka, Grace Whitney and Albany, the tow that the dailies insisted were lost, passed down on Saturday morning, for Ogdensburg.

B.

BAYFIELD.

The furious gale and snow storm that swept the upper lakes last Friday and Saturday was one of the worst ever known on Lake Superior. Friday night, when the storm was at its height, the steambarge Kittie M. Forbes, with the schooner Thomas P. Sheldon in tow, both loaded with railroad iron, from Cleveland to Two Harbors, was driven on the rocks at Outer Island, one of the Apostle group. She was scuttled to prevent her pounding to pieces. The crew saved. She now lies easily in about twenty feet of water. It is thought that she can be raised without serious loss. Shortly before the accident the tow line that connected the Sheldon to the Forbes was let go and the former started to run for this port, from the storm. Before reaching here her hoping too btain shelter rudder was wrenched out of its socketby the heavy sea and carried away. Disabled she was at the mercy of wind and wave and would probably have foundered or been driven ashore but for the opportune arrival of the tug R. W. Currie, which picked her up and brought her here. Kittie Forbes is owned by C. A. Forbes and others of Port Huron, and is valued at $65,000. Assistance was sent from the straits. She is insured in the Hull pool for $50,000. The Kittie M. Forbes, 742 tons, was built at Bay City by Wheeler in 1883, is iron strapped and braced and classed A1*.

GRAND HAVEN.

Special to the Marine Record.

The Grand Haven Ship Building Co. are just commencing a small steamer for Messrs. Coats and Arnold, of Mackinaw Island, to be used in the coasting and fishing trade. Length 71 feet, beam 14⅓ feet, hold 7 feet.

The Carrie Ryerson, of Muskegon, is out on the chain sling of the Grand Haven Shipbuilding Co. to have her wheel fixed.

P.

TOLEDO.

Garrett's boat house was burned Monday morning at 4 o'clock. The house was stowed with boats and supplies, and was burned to the water's edge. Mr. Garrett had $180 stowed away as a nest egg, but it disappeared with the rest in smoke. Total loss, about $2,200. Insured, but for what amount is not known.

HISTORY OF LAKE NAVIGATION.

BY J. W. HALL.

Written for the Marine Record:

CHAPTER XLIII.

In 1849 there were afloat upon the northern lakes, craft of every description, a total of 914 vessels, as follows: Of sidewheel steamers there were 95, with a total of 38,492 tons; 45 propellers, 14,435 tons; 15 barques, 1,645 tons; 98 brigs, 21,330 tons; 548 schooners, 71,618 tons; 128 sloops and scows, 5,484 tons, with a total valuation of $7,868,000.

Navigation was resumed at Buffalo April 11, the steamer Sultana arriving on that date, and the Straits of Mackinaw clear March 31, the schooner Petrel the first to pass through, bound west.

Four new sidewheel steamers were commissioned and commenced plying in 1849. Steamer Mayflower, 1,800 tons, built at Detroit, to ply between that port and Buffalo in connection with the Michigan Central railroad, commanded by Captain H. Van Allen. Atlantic, 1,100 tons, built at Newport, to ply on same route, sailed by Captain Stephen Clement. Keystone State, 1,354 tons, built at Buffalo, to ply between Buffalo and Chicago in Reed's line, commanded by Captain T. J. Richards, who died on board, on Lake Michigan, of cholera. The steamer was afterward taken charge of by W. P. Stone, first officer. Wave, 100 tons, built at Detroit, plied between Buffalo and Port Stanley, sailed by Captain John McEachern. Telegraph, 101 tons, built at Truago, Mich., for the Detroit and Port Huron route, Captain J. W. Abbott. There was also a steamer brought from Lake Ontario to Detroit, known as Telegraph No. 2, 197 tons, by Hudson & Johnson, which had formerly plied between Hamilton, Ont., and Lewiston, and was placed on the Detroit & Port Huron route, in charge of Captain O. P. Palmer. The other appointments remained the same as on the previous season with the following exceptions:

Steamer Southerner, Captain J. L. Edmunds, Buffalo and Detroit.

Steamer Baltic, Captain C. H. Ludlow, Buffalo and Detroit.

Steamer General Harrison, Captain A. Keating, Detroit and Cleveland.

Steamer Albion, Captain C. H. Cary, Detroit and Mt. Clemens.

Steamer Ben Franklin, Captain J. C. Benjamin, Detroit and Ste. Marie.

Steamer Diamond, Captain F. S. Miller, Buffalo and Cleveland.

Steamer Canada, Captain Geo. E. Willoughby, Detroit and Buffalo.

Steamer London, Captain F. R. Baby, Detroit and Ste. Marie.

Steamer Columbia, Captain Geo. H. Cottrell, Detroit and Ste. Marie.

Steamer Champion, Captain D. H. McBride, on Lake Michigan.

Steamer Nile, Captain L. A. Pierce, Buffalo and Chicago.

Steamer Globe, Captain L. H. Cotton, Buffalo and Chicago.

Steamer Rochester, Captain J. M. Lundy, Buffalo and Detroit.

Steamer Arrow, Captain S. F. Atwood, Detroit and Sandusky.

Propeller Peninsula, Captain Eastabrook, Detroit and the Sault.

Propeller Monticello, Captain John W. Webster, Buffalo and Chicago.

Propeller Lady of the Lake, Captain John Wilson, Buffalo and Chicago.

Propeller Racine, Captain John Brown, Oswego and Chicago.

Propeller Oregon, Captain H. Watts, Buffalo and Chicago.

Propeller Ogontz, Captain Geo. E. Hand, Buffalo and Chicago.

Propeller Hercules, Captain Alexander, Buffalo and Chicago.

Propeller Illinois, Captain Wm. Dickson, Buffalo and Chicago.

The first meeting toward the construction of a ship canal at Sault ste. Marie was held at that borough in 1849 to choose delegates to attend at Washington the ensuing winter. The Hon. D. R. McNair, late United States mineral agent, Hon. J. W. Allen, present United States mineral agent, and the Hon. T. Ashmun, were requested to act as delegates. A committee was also appointed to procure statistics for the use of the delegates. Congress subsequently granted 750,000 acres of the public land to aid in the construction of the work, which was given to the parties contracting for the building of the canal, provided the work should be completed within two years from the date of the contract. The work commenced in 1853 and was finished within the time specified.

At the close of the fiscal year June 30, 1849, the American tonnage on the lakes in the different marine districts, was as follows: Lake Champlain, 4,745 tons; Lake Ontario, 33,800 tons; Lake Erie, 115,960 tons; Lake Michigan, 10,483 tons.

At this period the state of Ohio was the sixth in point of shipbuilding, and built as much tonnage as all the states and ports from Chesapeake Bay to the Rio Grande, and twice as much as Virginia, North Carolina, South Carolina and Florida.

The tonnage of the western rivers, not including New Orleans, was as follows: Pittsburgh, 30,970 tons; Wheeling, 2,660 tons; Cincinnati, 21,350 tons; Louisville, 8,822 tons; St. Louis, 36,512 tons; Nashville, 2,445 tons; Vicksburg, 588 tons. The river tonnage, entered at New Orleans, was almost equal to the whole of the above, making a total of almost 200,000 tons on the western rivers.

The steamer New World, during the season of 1849, astonished the traveling public on the North river by her remarkable speed. On one of her trips between New York and Albany she left the former port at 7:13 a. m., and landed her passengers in Albany at 3:30 p. m., making all her landings, and running through in 8 hours and 17 minutes. She made the distance to Caldwell, forty-five miles, in 1 hour and 55 minutes; to Newburgh, sixty miles, in 2 hours and 42 minutes, and to Poughkeepsie, seventy-five miles, in 3 hours and 38 minutes. She lost thirty-eight minutes in landing, so that her running time was within three hours. From Poughkeepsie her speed was gradually slackened as she came into the narrow channel and shallow water.

One of the most notable occurences during the season of 1849 was the departure from Cleveland of the barque Eureka for California, via the Gulf of St. Lawrence, and with two or three exceptions, the first experiment in sending lake vessels on sea voyages. The Eureka was owned by W. A. Adair and took her departure in May, having on board fifty-nine passengers, with the following crew: Captain, Wm. Monroe; first mate, F. H. Freeman; L. D. Burwell, supercargo; Edward Beardsley, steward, and others to constitute a full crew. The voyage was a success and all were landed in safety.

The cholera was alarmingly prevalent in 1849 at nearly all the lake ports, beside many deaths on shipboard. Among those carried off was Captain Chesley Blake, long in the employ of Oliver Newberry, Detroit. This veteran sailor, who had been on the lakes since 1818, and was well known as an able commander, died at the American House, Milwaukee, October 8. He was taken with cholera on board of the steamer St. Louis, on her trip up to Chicago, while on Lake Michigan. The steamer called at Milwaukee, but the captain was so unwell it was not deemed prudent to move him. During the time the St. Louis lay at Chicago he remained on board and on her return to Milwaukee he was taken to the American and received every possible attention, and the most skillful medical care; but all means used were of no avail. The strong frame of the veteran yielded to the disease. His son and two daughters, who resided at Waukesha, were with him through his sickness. His remains were taken to Waukesha for burial. His age was 60. He had not been in charge of any steamer that season, his last charge being the steamer Nile which was wrecked at Milwaukee at the same time of his decease, and on board of which on her last trip there were fourteen cholera deaths. He had made every possible effort to evade the dread malady by traveling from port to port, including the Sault ste. Marie, but in every instance the cholera followed him.

The steamer Canada was sold to E. B. & S. Ward, taken to Newport and laid up. Later on she started out again, in command of Captain Owen.

The season was an unusually dull one, both in the freight and passenger traffic, owing chiefly to the epidemic which prevailed. The steamers which were temporarily retired were the Globe, Empire, Albany, St. Louis, Southerner and Baltic, as well as others. The steamers London and Southerner finished out the season between Detroit and Cleveland.

A noble act was carried out at Buffalo by Captain Willoughby, of the steamer Canada. An emigrant German woman fell overboard and would have drowned but for the gallant conduct of the captain, who, like a true sailor, plunged in and brought her in safety to shore. The gratified husband drew out a sovereign and offered the captain to remunerate him for his gallantry and trouble in saving his wife's life. The amount offered was at the rate of about two dollars per hundred on the weight saved.

The steamer Empire State met with a serious disaster by going ashore at Sleeping Bear, Lake Michigan, damaging her entire cargo beside the boat to a large amount. She was brought to Detroit for repairs.

The commercial market was dull and drooping throughout the season.

Captain Alex. Chisholm, of the schooner New Brunswick, left his vessel on the St. Clair flats, stranded, and came to Detroit for assistance, and was not seen afterward. He hailed from St. Catherines.

The steamer Oregon, was burned at Chicago early in the season; loss $15,000; and the steamer Hollister, damaged by fire at the head of Lake Erie. $8,000.

The schooner Outward Bound, Captain John Church, foundered; eleven lives lost.

The schooner W. G. Buckner was lost on Lake Michigan. The wife and three children of William Simpson were lost. The others were rescued by a passing vessel. The navigation of 1849 was closed December 13.

COMPOSITE PRINCIPLE—SUSPENDED WEIGHT.

BOSTON, November 1.

To the Editor of the Marine Record:

I have many inquiries in relation to my new theory, and of the difference in cost of building. Permit me to say for the information of all, that, for equal tonnage and power, a vessel, built on the composite construction plan including power for equal degrees of speed, will not cost much over half as much as one built of wood on the old plan of construction now in vogue, and she will not be nearly so heavy, and much stronger; in fact, so strong that the force of the waves cannot strain her even while in their troughs. This estimate is based upon a plain pine finish. As I have said in my other letters, the composite construction has proved to be superior to either iron or wood, as now used. I have said in my former letters that principles pertaining to form which I build from are the direct opposite to those *no* principles now used. I will add in this that the composite construction is also the direct opposite and that all strain with it is brought directly on the tension of the wood and not wholly on the fastenings as it is in other wooden vessels.

First, the frames are, all of them, placed longitudinally, reach the whole length of the vessel, and are firmly united in one piece, and when up, without the planking on, are self-supporting. With the planking on, the vessel is a complete truss and can be placed on a blocking at each end, or on one under her center. Wood is the only material in nature suitable to build a vessel of. Iron, for a time, has been substituted for wood, as the fact has become patent that in the manner that vessels were built, i. e. wholly dependent upon their fastenings (treenails) and calking for staunchness, that they were short-lived and not adequate to meet the forces of the ocean. Riveted iron sheets, apparently, give a better fastening than treenails, but even these do not prove adequate to meet the forces of the ocean.

As vessels are now formed, strain is caused from suspended weight hanging on their buoyancy, and as it must fall on their fastenings, it is not possible, in rough times, to keep the strain equal on all parts of the ship. This new theory changes this, and with it there is no suspension of weight. This comes from the fact that the load is above the buoyancy instead of below it, as in other vessels, and pressure is the only force which can be brought to bear on the vessel, either in rough water or smooth.

We now have the Future nearly ready and are waiting for the engine. The description given in my last letter, as far as it goes, is a correct one, but she, being the first and only plough bottom ever built, is, in principle, crude. If we had had time we should have built a new one. We had the plan made and intended to have built from it, but it would have taken two months more to build her than it has to fit the old one up. We are not preparing her for great speed in moderate weather. On the contrary, we shall use a minimum of power and expect to get a comfortable degree of speed.

To give an idea of her powers of advantage, we will compare her, as we expect she will be, with other yachts. Her total buoyancy at two feet above water is twenty tons. Hauled up near us there is a yacht of the Future's length, having in her a total of six tons buoyancy with a displacement of not far from three tons. She has a light engine and boiler of six-horse power, and they claim to make seven miles an hour, with a 2½ foot diameter of screw wheel that gives her one-horse power for each ton of her total buoyancy. The Future has, as we have said, a total buoyancy of twenty tons, and a displacement of six tons. We shall put in her but a four-horse power engine. This gives her a horse power for each ton and a half of displacement, and a horse power for each five tons of total buoyancy. We expect to get a speed with this power, without the aid of sail, of eight miles an hour, and with the aid of sail, in high wind, of ten miles, and shall if the boiler can make steam to keep up with the motion. She has at least four times the bulk of the other yacht which has no cabins. We have one cabin, fifteen feet long, five feet wide and over six feet high; her engine room is of the same size. We have one other small room about eight feet long and four feet wide. She is five feet above her water line. If there is any fault in the boat it will be that she is too high out of water for a boat of her length. But it will only hurt her speed on or about one course if steaming to windward. As soon as her course is enough "off" to fill her sails she then can get their aid. On a beam wind course, in a rough time, she will fly. If we get the speed we expect it will show the great advantage she has over the other yacht.

One of the most unsettled problems now before the world is a ratio of resistance of water to different degrees of speed, and the philosophic principle which causes this resistence. If the theory of the Future is the right one she will not meet any increased resistance of the water or create any adverse currents against her passage such as the Dolphin encountered. The "lines" of the Future were calculated for a speed of eight miles an hour, and running up to that speed, no vacuum can be formed, but driven beyond that speed a vacuum would form. For the same width and to make sixteen miles an hour she would require to be twice the length she now is, that is, her displacing end of the plough would need to be forty feet long, and the replacing end twenty feet long, being sixty feet in length.

We now expect to get away by the 8th inst. Yours truly,

JOSEPH W. NORCROSS.

THE PILGRIM RETURNS TO CLEVELAND.

YOUNGSTOWN, O., November 12.

To the Editor of the Marine Record.

I am not sure but what it will be best for me, after all, to return to Cleveland and take you at your offer and devote my energies to journalism. It has often been said of western steamboat men that their reason for improvidence is because they learn the one trade of boating and there pause. And there is more truth than poetry in the assertion. As for me, I have tried everything and failed; yet I am willing to confess that my theatrical experience was the most inglorious failure of all. Mr. Editor, you remember the pathetic lines of Pope, and you will see at once how applicable to my case:

"Look here, young man, take my advice,
And ever shun the bottle;
And if you are an engineer,
Then stick closely to your throttle.

"You may be a genius in your line,
The most learned of your age;
But an expert at the throttle valve
May fail upon the stage."

Our second night here there was only one man in the house and that man was Munson T. Britton, of the American Lubricating Company, and I presume he slipped in upon some of his stock, for the cash box was empty. When I was in Cincinnati Britton said he would do anything for me, so, as I am completely stranded, I indited a polite note to the gifted gentleman, asking for enough money to get back to Cleveland. His refusal was couched in elegant, though positive terms, and is a masterpiece of brevity, reading as follows:

"Your note received. I am broke, but if it will be of any help to you I will start and walk back to Cleveland with you. As ever, your friend, M. T. B."

Subsequently he informed me that he was the originator of a patent medicine to make fat folks lean, which he says sells like ginger snaps. When asked why he did not represent it in person, he said it was because in representing the oil trade he found that in being fat kept the question of lubricants constantly before the public, and was, in fact, a species of advertisement. I think I'll try the thing for a while.

THE SECOND ENGINEER.

NEW PIER AND WAREHOUSES.

The Northern Pacific Railroad Company will at once begin work on the new pier and warehouses to be constructed during the winter at Duluth. They will replace the present warehouses and docks. The entrance to the slip will be about 120 feet wide and at the east end of the Northern Pacific dock. This entrance will give access also to the dock which the Duluth Improvement Company intends to build in the commerce division. The Northern Pacific dock or pier will run parallel with the slip, and will be 1,000 feet long and 183 feet wide. On the pier will be constructed a warehouse for general merchandise, and another for goods in bond. The warehouse will be constructed with great care, and be a substantial and permanent structure capable of containing an enormous amount of merchandise. The location of the present railroad track will be changed so as to run beside the warehouses whence goods can be transferred with the least possible trouble. The method of trans-shipment will be so complete that merchandise can be conveyed by hand cars from railroad or wagon to the steamer direct, without entailing a second handling. In some respects the new pier will resemble the present public slip, but the approaches, warehouses, dock room, and all other matters connected with the dock will be on a much larger and more improved plan.